

SEXUAL DIMORPHISM IN FIRST INSTAR *EPICAUTA*
LARVAE (COLEOPTERA: MELOIDAE)

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ABSTRACT

First instar *Epicauta* larvae are sexually dimorphic. Figures illustrate that males have a small pore on abdominal sternum IX, and females lack this pore.

In male coarctate larvae of Meloidae the point of attachment of the rudimentary ejaculatory duct to the cuticle is marked externally by a median pit on abdominal sternum IX (Berrios-Ortiz and Selander 1972). By means of this character, it is possible to sex both living and preserved coarctate larvae.

While examining microscope slides of the heavily-sclerotized first instar larvae of 28 species of *Epicauta*, I found that about half of the individuals have a small pore on abdominal sternum IX (Fig. 1 and 2) which is thought to be the homolog of the median pit on the male coarctate larva. In some specimens it is evident that the pore has a sclerotized tubular extension internally which appears to be the rudimentary ejaculatory duct. In large-sized larvae, the pore can be seen on unmounted specimens preserved in alcohol.

The presence of detectable sexual dimorphism in first instar larvae has important consequences for the study of meloids. First, the ability to sex preserved larvae provides a method for determining secondary sex ratios of populations. In addition, in the case of species with large larvae, it may be possible to sex live individuals. This procedure could contribute greatly to the effectiveness of rearings and experimental work.

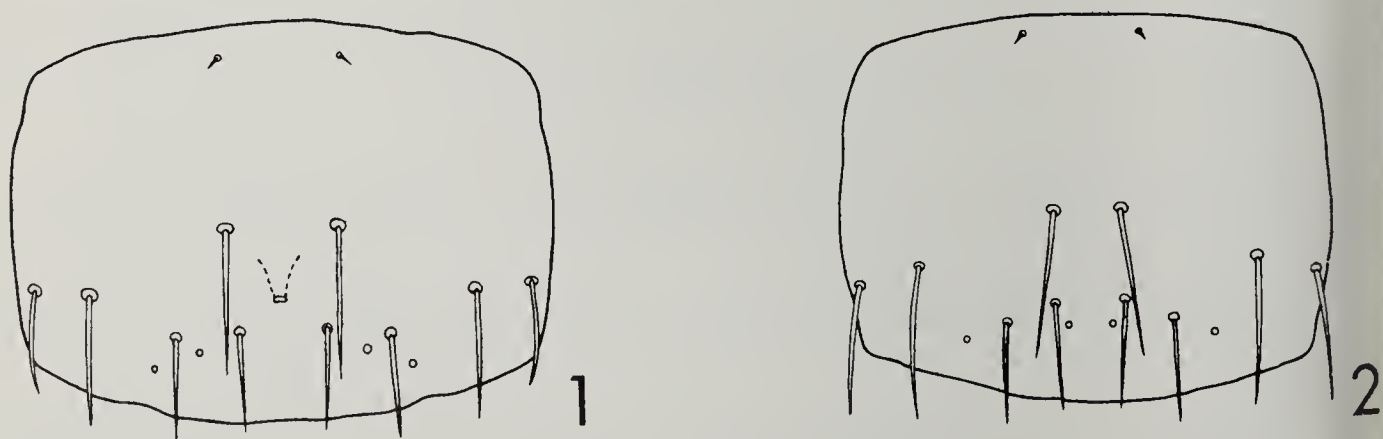


Fig. 1-2, First instar larva of *Epicauta luteolineata* Pic, abdominal sternum IX: 1) male, 2) female.

REFERENCE CITED

- BERRIOS-ORTIZ, A. AND R. B. SELANDER. 1972. Sexing immature blister beetles. *J. Kansas Ent. Soc.* 45:376-380.